	Application No.	Applicant(s)	
Notice of Allowability	10/080,540	MIZUMURA ET AL.	
	Examiner	Art Unit	
	Shamim Ahmed	1765	
The MAILING DATE of this communication appear claims being allowable, PROSECUTION ON THE MERITS IS (Crewith (or previously mailed), a Notice of Allowance (PTOL-85) of TICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGH	OR REMAINS) CLOSED in r other appropriate communities. This application is seen	this application. If not included inication will be mailed in due cours	se. THIS
☐ This communication is responsive to <u>12/29/03</u> .			
☑ The allowed claim(s) is/are <u>10-23</u> .			
oxtimes The drawings filed on <u>25 February 2002</u> are accepted by the	Examiner.		
Acknowledgment is made of a claim for foreign priority und a) All b) Some* c) None of the:		or (f).	
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2. Certified copies of the priority documents have be			
Copies of the certified copies of the priority docu	iments have been received	d in this national stage application f	rom the
International Bureau (PCT Rule 17.2(a)).	n		
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☐ A SUBSTITUTE OATH OR DECLARATION must be submitt INFORMAL PATENT APPLICATION (PTO-152) which gives			CE OF
CORRECTED DRAWINGS (as "replacement sheets") must	be submitted.		
(a) \square including changes required by the Notice of Draftsperso	n's Patent Drawing Reviev	v (PTO-948) attached	
1) hereto or 2) to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's a Paper No./Mail Date	Amendment / Comment or	in the Office action of	
Identifying indicia such as the application number (see 37 CFR 1.8 each sheet. Replacement sheet(s) should be labeled as such in the			k) of
☐ DEPOSIT OF and/or INFORMATION about the deposi attached Examiner's comment regarding REQUIREMENT For	t of BIOLOGICAL MATI OR THE DEPOSIT OF BIO	ERIAL must be submitted. Note DLOGICAL MATERIAL.	the
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☑ Notice of References Cited (PTO-892)		formal Patent Application (PTO-15	2)
☐ Notice of Draftperson's Patent Drawing Review (PTO-948)		ummary (PTO-413), /Mail Date <u>4/1/04</u> .	
Information Disclosure Statements (PTO-1449 or PTO/SB/08 Paper No./Mail Date), 7. ⊠ Examiner's	Amendment/Comment	
Examiner's Comment Regarding Requirement for Deposit		Statement of Reasons for Allowan	ce
of Biological Material	9. 🗌 Other	_·	
		NADINE G. NORTON	

Application/Control Number: 10/080,540

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Alan E. Schiavelli on 4/1/14.

The application has been amended as follows:

IN THE SPECIFICATION:

At page 12, line 5, replace "Figure 4 is a" with "Figures 4a-4f are".

At page 39, replace the "Abstract of the Disclosure" with the following paragraph:

"This invention relates to a method for etching an organic insulating film used in the production of semiconductor devices. A sample to be etched on which a low dielectric constant organic insulating film is formed and is etched by generating a plasma from hydrogen gas and nitrogen gas or ammonia gas, and controlling the gas flow rate and pressure so that the light emission spectral intensity ratio of hydrogen atom and cyan molecule in the plasma comes to a prescribed value. By this method, a low dielectric constant organic insulating film as an insulating film between layers can be etched without using any etch stop layer so that bottom surface of trenches and holes for electrical wiring become flat."

IN THE CLAIMS:

Cancel claims 1-9.

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- 2. The following is an examiner's statement of reasons for allowance: The prior art does not teach a process for etching an organic insulating film to a prescribed depth while suppressing microtrenching, wherein the etching is performed without using an etching stopper layer and the prescribed depth is less than the thickness of the organic insulating film as the context of claim 10.
- 3. The closest prior art Fukazawa (JP-2000-252359) discloses a process for etching an organic insulating film until the wiring layer is exposed but fails to teach etching a portion of the organic insulating film to a prescribed depth, which depth is less than the thickness of the organic insulating film.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shamim Ahmed Examiner Art Unit 1765

SA Thursday, April 01, 2004

> NADINE G. NORTON SUPERVISORY PATENT EXAMINER

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